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HINTS AND HELPS TO AMATEURS SERIES. II.

By Zepho.

VENETIAN BENT IRON.

THERE is a great and growing interest among present day amateurs, in this fascinating art of the early ages; and for the best of reasons—its extremely simple method of execution. In ages past this beautiful art was guarded, with jealous care, and the secrets of its construction, transmitted from father to son, through numerous generations. It has long been looked upon as one of the higher arts.

That it is possible to-day, to gain the simple knowledge and materials, that will enable a mere child, with a little care and thought, to produce seemingly intricate, and undoubtedly beautiful specimens of this work, is due—as I said in last month's article on Pyrography—to the enterprise and push of the manufacturer of to-day.

The secrets so jealously guarded in times past, not only stand revealed in the search light of modern research, but they are marvelously simplified and improved;—the laborious handiwork of the ancient artisan, is now mere child's play, so aided is it, by simple mechanical devices.

This need in nowise detract from the beauty of the design. If one has not the artistic conception necessary for producing original work, one has but to follow closely the prepared designs furnished by the manufacturers—that are mechanically correct, and in most instances artistic as well—and the result is invariably gratifying from an artistic standpoint.

In accordance with my promise to exploit in every instance, the simplest known methods, I have selected the following outfit, which will be found extremely satisfactory, both to the beginner, and the advanced amateur. The Stewart twister, for producing curves; the Stewart binder, for fastening the parts together; forming tool, for producing slight curves; vice, iron shears, square-nose pliers, round-nose pliers, tape measure, one-half pound antique paint, black paint for finishing work, three brushes for applying.

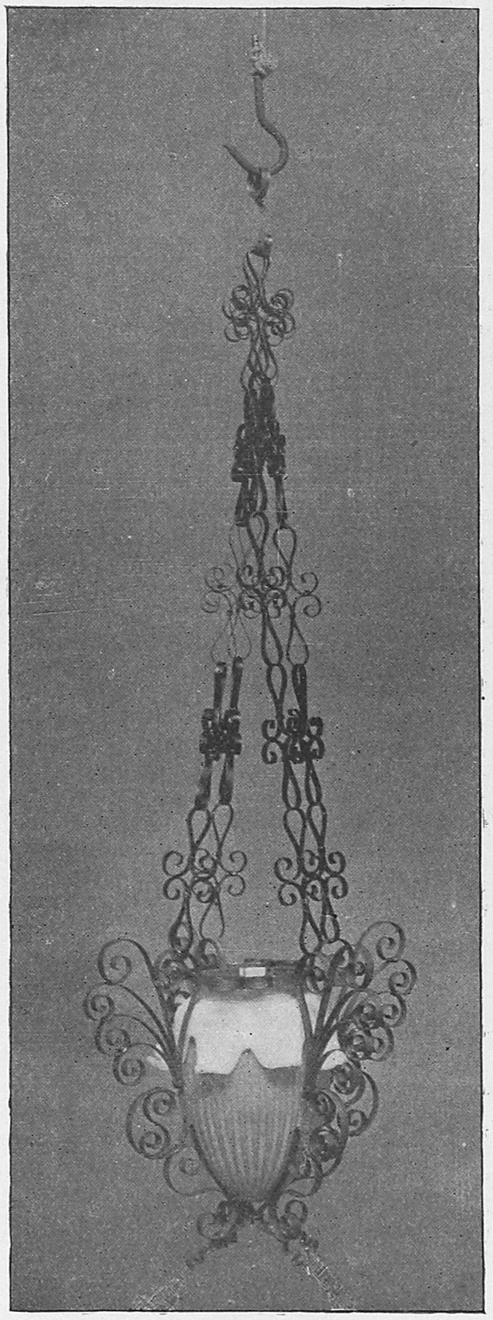
Also, a fifty-foot coil of iron strips one-eighth inch wide, fifty-foot coil of same one-quarter inch wide, iron binder one-eighth inch wide, for fastening the narrow strips; iron binder one-quarter inch wide, for fastening the wider strips; a spool of iron wire, spring clasp pins for finishing the ornamentation of candlesticks, latches and extinguishers.

This outfit includes three selected designs, and will cost eight dollars and a half. Space will not allow of the full description of methods; the tools themselves are explanatory, so simple are they in construction and application. Any desired curve may be produced with little labor, and the individual pieces fastened together with the iron binder before compiling the complete design.

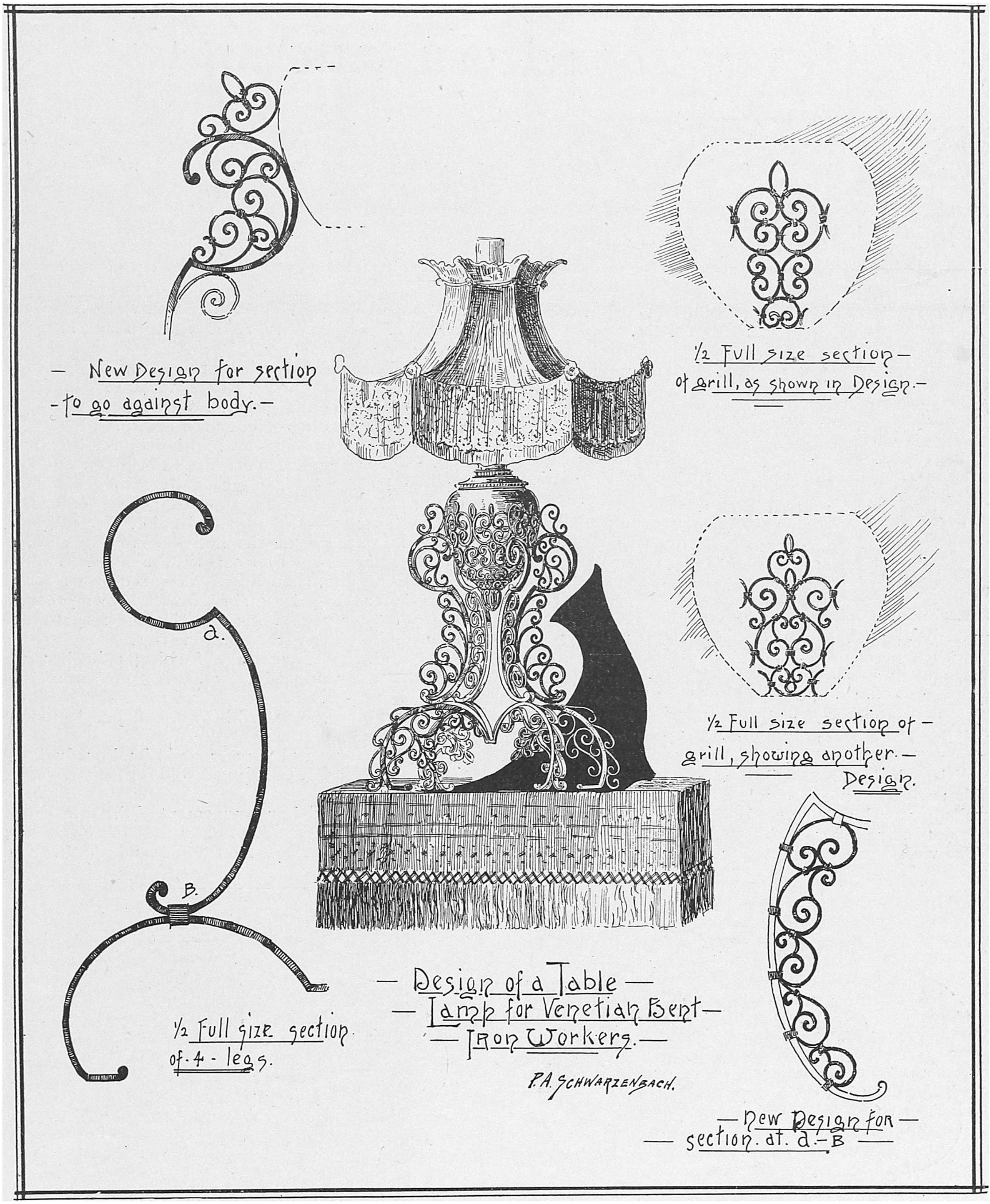
The time has past when the accessories of forge, hammer, heat and dirt, were necessary factors in work of this sort; the various parts are neatly and strongly bound together with iron clips and no riveting or welding is necessary. Under this method the work is neat, clean, simple and noiseless, and may be accomplished amid home surroundings without the slightest discomfort, with both pleasure and profit.

The iron frame-work, for the building up of these dainty frets, may be procured in almost every conceivable form and small expense, such as candlesticks, hanging lanterns, brackets for candles or hanging baskets, any many others. The amateur has but to fill in and finish according to the specified plans, and the result is a daintily exquisite fabric, seemingly the work of skilled hands.

Interested amateurs, wishing any information regarding tools, materials and designs, may write to the office of The Decorator and Furnisher.



Venetian Bent Iron Hanging Lamp. Designed by The Venetian Bent Iron Co., N. Y.



Design for a Venetian Bent Iron Table Lamp, with Details and Alternate Studies.
Designed and Drawn by P. A. Schwarzenbach.

THE TRAIL OF THE MICROBE.

THERE is no place in the home where disease is so apt to lurk as in the Larvæ abiding-places under carpets, and in the unsanitary conditions presented by soft wood floors. The public is fast being brought to an appreciation of this condition, and to guard against this danger, are having their floors covered with thin hardwood, three eighths of an inch thick, which are made a permanent part of the house by being securely bradded to the under floors. These thin floors are so treated in their manufacture that no possible shrinkage can occur after being laid, and present a surface which is absolutely dust and microbe proof. These floors need not of necessity be elaborate in pattern, they can be of what is termed Wood Carpet framing in the centre area with mitred corners and a simple Parquetry border next the wall, as shown in above cut.

Such a floor can be laid and finished complete, at the cost of a good carpet. These polished hardwood floors are less care than carpets, and will last as long as the house.

If the treatment of the room calls for a more decorative pattern, the centre can be filled with a Parquetry design, as shown in the cut below.

People contemplating this European method of floor treatment plan to have their carpets made into squares for the centre of the rooms.

Modern methods of manufacturing Parquetry, and the advantage of location of plant in the choice hardwood district of this country, enables The Interior Hardwood Co., of Indianapolis, Indiana, to offer at reasonable prices, within the reach of all, both plain and ornamental floors of the finest hardwoods.

They also make a prepared Floor Wax, under the brand "Interior" which is easily applied and preserves the wood in all its natural beauty, beside giving the polished surface desirable for cleanliness and health. Correspondence is invited regarding this flooring, its finish, or the proper care of hardwood floors. C.

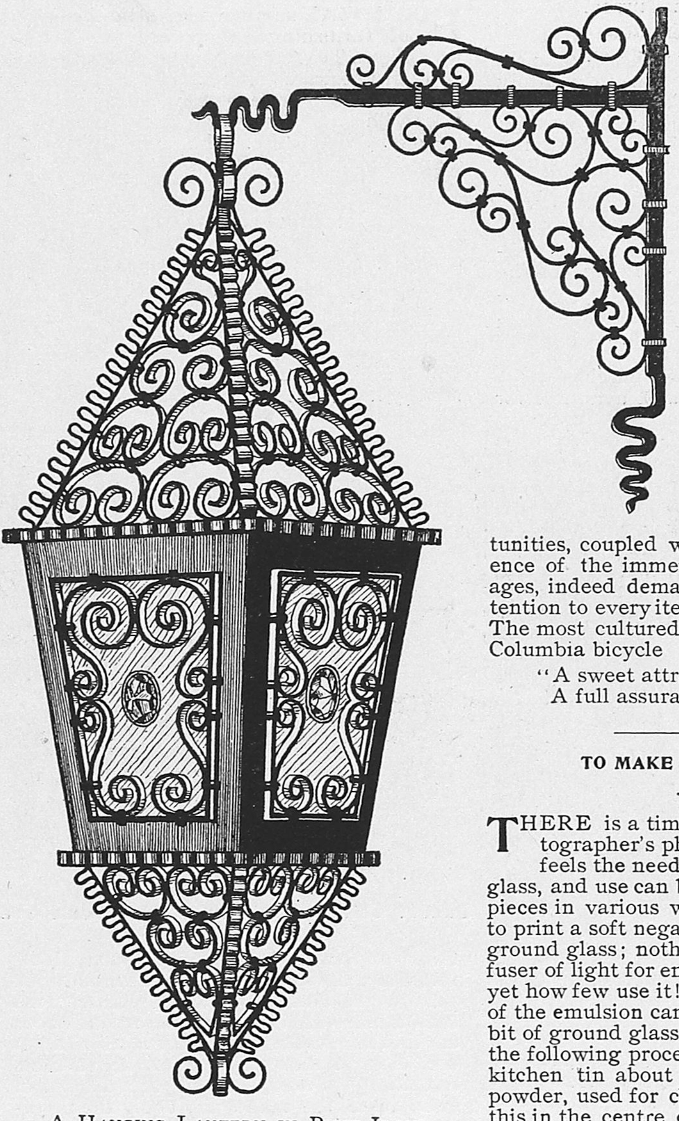
CULTURE OF PLANTS UNDER COLORED GLASS.

THE influence exerted by colored glass upon the development of plants is a subject that has attracted attention for a long time. All luminous radiations are far from presenting the same efficiency in forcing the growths of plants. The most recent work done in this line of research is due to Mr. Villon, who, in the first place, instituted a series of laboratory experiments. He placed some potted plants in a large, well-ventilated case, presenting all the conditions beneficial to their proper development. The panes of glass of this case could be easily replaced by others of different colors. His experiments were made upon the following kinds of glass: (1) White glass; (2) uranium glass absorbing light; (3) blue glass covered with cobalt, allowing the ultra-violet to pass; (4) blue glass covered with copper, allowing the ultra-violet to pass, absorbing the extreme red rays; (5) red glass covered with protoxide of copper, absorbing all the colors of the spectrum between red and blue; (6) glass made orange color by a coating of bichromate of potash and allowing only yellow and red to pass; (7) violet glass colored with manganese, absorbing the yellow and blue; (8) green glass colored with protoxide of iron, absorbing the rays; and (9) glass covered with a thin layer of silver, allowing only the blue rays to pass. The results obtained are found in the following table, where the growth of the plants under white glass is represented by 100:

Culture under white glass	100
‘‘ ‘‘ bichromated orange glass	150
‘‘ ‘‘ manganese violet glass	160
‘‘ ‘‘ cobalt blue glass	140
‘‘ ‘‘ copper blue glass	120
‘‘ ‘‘ silvered glass	60
‘‘ ‘‘ uranium glass	40
‘‘ ‘‘ gilded glass	40
‘‘ ‘‘ red (protoxide copper) glass	15
‘‘ ‘‘ green (protoxide of iron) glass	10

It must be concluded from these figures that the light that favors vegetation best is the orange light of the chromatic glass and the violet light of the manganic; and, as radiations that these glasses allow to pass are the red ones, it is, in definitive, red that is most favorable to the development of plants.

Mr. Villon has made some new experiments, whence it results that the best light is that which traverses manganese violet glass, that is to say, that which contains the red, the violet, and the calorific rays. These latter experiments were made upon the grapevine, ornamental flowering plants, the useful ferments (yeast of beer, ferment of wine, butyric ferments, etc.), and, finally, upon silkworms, which are more vigorous when they are raised in a room lighted by violet glass.



A Hanging Lantern in Bent Iron.
Designed by The Venetian
Bent Iron Co., N. Y.

(See Article on Page 180)

A DISSERTATION ON BEAUTY.

KEATS and Ruskin the Englishmen, and Emerson and Holmes the Americans, have uttered right thoughts concerning beauty. Indeed, all truly great men have perceived its value, its mission and the criterion by which it must be judged.

In the case of physical beauty there must be, and in real instances there is, a truth, a substratum of character that assures the spectator of taste and admiration justified and not perverted, for there is a marvellous difference between beauty and handsomeness. "Handsome is as handsome does," runs the old adage, but genuine beauty requires no further guarantee. Such, indeed, is characteristic of the world-famous Columbia bicycle, which is peerless in grace. The delicate refinements of process and adjustment that distinguish the Columbia are the effects of unexcelled facilities and opportunities, coupled with the important influence of the immense trade which encourages, indeed demands, constant expert attention to every item of wheel manufacture. The most cultured sensibilities find in the Columbia bicycle

> "A sweet attractive kind of grace,
> A full assurance given by looks."

TO MAKE GROUND GLASS.

THERE is a time in every amateur photographer's photographic life when he feels the need of a bit of good ground glass, and use can be found for a number of pieces in various ways. Nothing is better to print a soft negative under than a bit of ground glass; nothing acts so well as a diffuser of light for enlarging or reducing; and yet how few use it! A spoiled plate stripped of the emulsion can be changed into a good bit of ground glass in about half an hour by the following procedure:—Procure from the kitchen tin about a teaspoonful of emery powder, used for cleaning knives, etc.; put this in the centre of a large piece of common glass resting on a flat surface—nothing is better than several thicknesses of newspaper on a table. Then, taking a cabinet print-cutting shape with a knob, rub the emery powder hard. This is merely a preliminary, and grinds down the larger pieces which would scratch the piece destined to be ground. Now, collecting the emery, put it aside for a moment and fix the piece of glass to be ground in the place of the other. Put a little emery in the centre, and, with the cutting-shape pressed steadily, move rapidly with a rotary motion, grinding the surface, adding more emery as it is used up. At first it will be found that the surface will be covered with scratches and the work looks spoiled; but if the action is continued steadily, less than half an hour will finish a piece far superior to that usually sold in the shops.